



Mongolian Emergency Service Hospital Hygiene Project

MeshHp.mn

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Report of the 9th visit to Ulaanbaatar **2 – 9 March, 2013**

Participants

Prof. Dr. Walter Popp, University Clinics Essen
Dr. Birgit Ross, University Clinics Essen
Michael Rossburg, MVZ Dr.Eberhard u. Partner - Dortmund
Michael Roßburg (laboratories) will write own report which will follow.

Hospitals

First Central Hospital of Mongolia (FCHM)

It was **reported** that Avagard handrub (chlorhexidine) and CaviCide (most of all alcohols, but very low concentration only! Recommended for dental instruments) are used now, both coming from Korea.

Also it was reported that 27 surveillance studies were done.

There were 18 MRSA cases in 2012 and 14 cases of multiresistant bacteria in 2013 until now - 5 MRSA, 7 ESBL E. coli and 2 Acinetobacter baumannii.

1,521 liters of alcoholic hand rub was used in 2012, there was often hand hygiene training with black box. Bowie Dick test was done 43 times in last 5-6 months. Some of those products are now bought from budget.

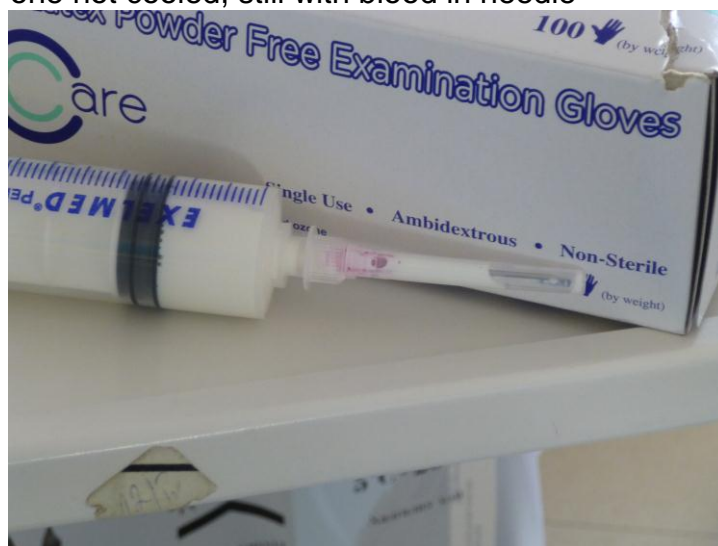
During the **visit** the **microbiologic lab** was seen again: Hepatitis B and C parameters are determined regularly, not D (only NCCD), also virus concentrations can be determined. Data about hepatitis in staff are available.

The **ICU** reported different multiresistant bacteria like MRSA, Acinetobacter, Pseudomonas and E.coli, especially in pneumonias and sepsis. Very often ventilated patients get a nosocomial infection of the lung after 3-4 days. Tubes for intubation are single use only, also ventilation pipes, only sterile water is used for moistening, filters in pipes are single use.

Moisture separator seemed not really cleaned:



Propofol syringes are taken away, lay around without cooling and are used again if needed. We saw one not cooled, still with blood in needle



Propofol has to be used only once and for one patient! Removing and using again is not allowed because of high risk of bacterial growth in very fat substance!
Around patients with multiresistant bacteria as few as possible materials should be stored, eg there are too many suction catheters:



Alcoholic handrub is used in the ICU and we strongly support this (better than chlorhexidin). As surface disinfectant Mikroquat from Ecolab is used:



It is usually recommended for food industry and kitchens and we have some doubts whether it is working against gram negative bacteria.

The nurse-patient ratio is 1:3 in all shifts.

If working at the patient, nurses wear aprons, hat, masks and gloves. Unfortunately, relatives, during their visits, usually do not wear protection clothes and it should be tried to change this even if may not be easy to do.

Bronchoscopes are used and disinfected in endoscopy unit.

Basically, problems with multiresistant bacteria can only be fought by very strict staff discipline, good hand disinfection all the time, and careful often disinfection of all materials and surfaces.

Regarding **CSDD**, there is no change at the moment. New sterilisers from Korea are expected in April.

In **endoscopy unit**, now bronchoscopes are disinfected in buckets with Seku sept 2 % (changed every 2 days):



Gastrosopes are manually disinfected also in Seku sept 2 % (changed daily), coloscopes are disinfected in new washer disinfector, also using Seku sept. We have severe doubts about this product – at least it is not an original Ecolab product (see also “list of disinfectants” on meshhp website).

Second Central Hospital of Mongolia (SCHM)

4 staff members have been in Essen for training in June 2012.

Some changes since then were **reported**: Improved hand washing, take out coats in cafeteria:



Additionally share experience with other hygienists/epidemiologists and different trainings (eg hand hygiene on every ward and unit).

Also the symposium last year was very important and some research data were presented there about the risk of nosocomial infections by contaminated HCW coats. There was a study done about antibiotic use in the hospital with 2,592 cases enrolled. It showed that use is different from recommendations and there is a big need for evaluation of antibiotic use.

Also a lot of toilets were changed with an increasing number of containers for tissues, also alcoholic handrub and fluid soap.

Training was done in staff, also re emergency issues (paramedic training, black box)

Some units were renovated, eg the basement hall in front of sterilisation unit and the laundry. Alcoholic handrub solution is produced in hospital.

Until now 125 HCWs were vaccinated against hepatitis B with 2 doses each.

Ideas for the future are:

- How to check surgical site infections?
- Use of antibiotics on ICU and in surgery.
- Get more black boxes (2-3).
- More hand washing solution supply.
- Improve sterilisation unit.
- Improve microbiologic lab.
- Improve situation in hospital kitchen, no sufficient storage of food at the moment.
- More training on outbreak of infectious diseases.
- Check antibodies on vaccinated staff (hep B).
- Check sterile products.
- Get more budget on hygiene issues.

We had a **visit** to the microbiologic lab, also to the **sterilisation unit**: There is a new steriliser:



Also the old steriliser is still in use.
The CSSD is renovated, but the quality of renovation is not good with paint coming down from ceiling:



New window:



There is a new autoclav from Korea, also the old one is still in use.
The **laundry** is renovated, too, with new ventilation which was installed by an external company.



Unfortunately, nobody knows how it is working.
The staff clothes are prewashed by hand with scrub:



Chingeltej district hospital

It was **reported** that a swot analysis was done after the trip to Essen in June 2012. Important issues at the moment are hospital construction and hand hygiene. There were swabs done on surfaces to control cleaning.

A big donation from MoH (950 mio tugriqs = 60,000 €) is used for renovation of sterilisation unit, laundry, physical therapy, ICU, pharmacy, also to buy new equipment (also for lab), coloscopy washing and new autoclav (Sterivap).

123 HCW were vaccinated against hepatitis B.

112 liters of alcoholic handrub solution were used in 2012.

Endoscopy will start in May.

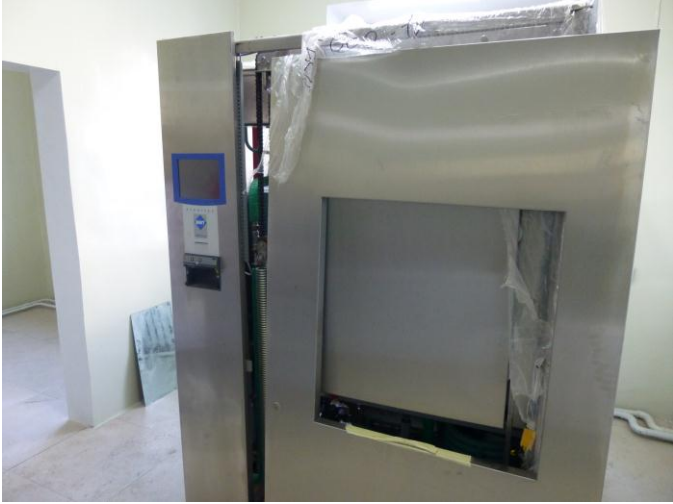
There were 4 training units in hygiene, teached by Dr. Tsolmon.

During the **visit** we saw renovated laundry, mattress washing machine, CSSD with new autoclave (Sterivap), also renovated children´s ward. Most of it was planned by Dr. Uka and it seems that he really did a very good job.

Regarding laundry, the room with the washing machines is very small and it still needs some exhaust air channel and perhaps cooling unit.
New sterilisation unit:



New autoclave:



Renovated children's ward:



NCCD / Union of hygienists of Mongolia

Dr. Tsolmon **reported** about NCCD. She had also been in Essen during the June visit on behalf of hygienist union of Mongolia.

Dr. Tsolmon made a lot of trainings and got an official member of a commission in MoH about nosocomial infections . Dr. Bat-Erdenne, as member of hygienist union, initiated a study in bladder-catheter related infections. Also there is a plan (involved also Dr. Lkhajii and Dr. Tsolmon) of a big nation wide one day prevalence study. And she is working on guidelines on bladder catheter usage and to include more issues like hand hygiene, cleaning and sterilisation in the accreditation process of hospitals.

Emergency Service

Dr. Muugii reported about training which was done for drivers, 35 of whom are trained until now. In the new training always a pre and post test is done. Issues in training were anatomy, how to lift and carry and more.

The new minister will get more attention on emergency service: there is a new commission working on emergency service, doctors will get a specialisation. There will be more budget for parametric training, also for disinfection and sterilisation equipment. In 2014, there will be more big sterilisation units; additionally, they want to increase the number of staff with vaccination against hepatitis B.

Emergency Service got 10 new cars (fully equiped) from Korea.

They will get 25 in addition next month, so they will have 35 (new) cars in total.

All cars are containing defibrillators, monitors, oxygen, ambu bags and special equipment for children. The cars are used for emergency calls in UB city – missions abroad are conducted with the Russian vehicles as before.

Dr. Muugis driver training includes dealing with the new equipment. It remains unclear whether a special training for the equipment was conducted for doctors and nurses.





Training and presentations

Prof. Walter gave a presentation about “Outbreak Management” in HSUM, Public School of Health.

He also gave a presentation about „Hospital construction“ in First Central Hospital of Mongolia.

Dr. Birgit gave presentations about “Antibiotic use in Mongolia” in First Central Hospital of Mongolia and about “Prevention of surgical site infections (perioperative prophylaxis)” in Second Central Hospital of Mongolia.

Michael Rossburg gave a presentation about microbiologic labs in Second Central Hospital of Mongolia:



Meetings

There was a 2 hours meeting with **Dr. Soe Nyunt-U**, the new **WHO** Representative, and Dr. Ariuntuya.

There was a meeting with **Dr. Gantumur (Global Fund, GF)** and a representative from MoH. GF wants to make a basic symposium about IPC and it was decided that this symposium will be done on 19 and 20 of June 2013, organised by GF, Mongolian MoH and MeshHp project. GF will invite around 200 participants, also from other cities and the countryside.

GF would like to have some demonstrations, like use of black box in training of hand hygiene. Parliamentary State Secretary Mrs. Flach from German MoH will be present also and give a short speech.

Later contacts clarified that also German embassy will give some short speech and ADB will participate and finance eg simultaneous translation. Also German MoH will be a co-organisator.

Possible contributions from MeshHp side should be basic and might be:

- Problems about disinfectants (Prof. Walter),
- Resistant bacteria (Dr. Birgit),
- MeshHp results (Dr. Uka – or other topic),
- basic quality in microbiologic labs (Michael Rossburg),
- hygiene of emergency cars (Jörg).

Also poster presentations shall be used to report about small results and improvements in MeshHp project.

Prof. Walter had a meeting with representatives of **GIZ** – Mr Kosemund, Mrs Renggli and Mr Ganbat Byambaa - about accreditation and questionnaires of state inspectors re hygiene issues.

A meeting took place with **Mr Enkhtsel Tseyen, new Vice Mayor of Ulaanbaatar city**, in charge of social development. He was informed about the cooperation treaty between Ulaanbaatar and Essen and the existing contacts (hospitals as well as emergency service). He was informed that hospitals need higher budgets for hospital hygiene and also some freedom to use the budgets on their own decision.

It was followed by a meeting with colleagues from UB city health department (Ms M. Munkhdelger, Mr N.Tsogbadrakh, Dr.D.Narantsetseg) whom we know since the beginning of our contacts.



In the **Health Science University of Mongolia**, there was a meeting with the dean of School of Biochemistry, **Prof. Gunchin Batbaatar**, and Dr. Khosbayar. Additionally to existing contacts to the University of Düsseldorf (translation of curriculum for students), there is an interest in scientific and collaboration in methodology. We promised to care for that.

Michael Rossburg and Prof. Walter had a meeting with **President & CEO Prof. Khurelbaatar** and Prof. Amarja from **Monos** Company re lab capacities in Mongolia.

Prof. Walter had a meeting mit **Claude Bodart, ADB**, regarding the symposium in June 2013 and ADB Health 5 project.

Also Prof. Walter had a meeting with **MedClean** staff regarding import of disinfectants from Germany.

Social life

Again there were a lot of very nice meetings, dinners and events – like ballet “Uran Khas” and winter Nadaam horse race - with a lot of our friends. Thank you so much for that!

Dr. Uka and Prof. Walter with his new deal:



Winter Nadaam:



Some conclusions and recommendations

Improvement of hand disinfection with alcoholic handrub is going on slowly, but well. In our opinion, there is no need to take another hand disinfectant than alcohol because no one with a broader range is available.

Also vaccination of staff against hepatitis B is finished (FCHM) or going on well in all pilot units. Testing of all vaccinated staff by antibodies has started or is planned.

Dr. Navchaa will discuss our paper about therapy of hepatitis virus positive staff with relevant persons and we will discuss it again during next visit.

We saw some very nice steps of renovation, especially in Second Central Hospital of Mongolia and Chingeltej District Hospital. Unfortunately the quality of renovation seems to be very bad very often. So renovation should be controlled daily or at least every two days during renovation process by hospital administration and hygiene unit.

All hospitals should try to get a well working technics department. Water systems or ventilation (also elevators, energy supply...) might be built by external companies, but the hospital should know very well about their construction, way of working and needs of maintenance. This should primarily be task of a technics department. The same problem is with sustainability of products: It does not make sense to get new products – eg from NGOs – without clarifying regular maintenance, repair, support of necessary chemicals and material; this also means that a budget for this is existing.

Next groups from Mongolia might come in September and November 2013.

Next visit to UB from Essen will be in June 2013.

Prof. Walter and Dr. Birgit, 18 March 2013